



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,651	12/01/2003	Michael J. Kling III	460000	2315
27717	7590	11/29/2004	EXAMINER	
SEYFARTH SHAW 55 EAST MONROE STREET SUITE 4200 CHICAGO, IL 60603-5803			LAU, TUNG S	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,651

Applicant(s)

KLING ET AL.

Examiner

Tung S Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date See office action.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed on 6-14-2004 has been accepted and signed by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 6, 8-12, 15, 16, 18-22, 24-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Rochelle (U.S. Patent Application Publication 2002/0093331).

Regarding claim 1:

Rochelle discloses in a system for measuring the relative locations of points on a vehicle, which system includes plural electromagnetic radiation sources (page 1, section 0006) adapted to be fixed relative to the vehicle and plural electromagnetic radiation receivers at a receiving location and a processor coupled to the sources and to the receivers and operating under control of a stored program for determining angles between each receiver and each source which is in the field of view of the receiver (page 1, section 0006, fig. 3, 4), the improvement comprising: a display device coupled to the processor (page 1, section 0006), and the processor program including a routine for monitoring each

receiver and generating on the display device a graphical display indicating for each source and each receiver whether or not the source is in the field of view of the receiver (page 1, section 0006).

Regarding claim 8:

Rochelle discloses in a system for measuring the relative locations of points on a vehicle, which system includes at least one electromagnetic radiation source disposed on a hand-held probe and plural electromagnetic radiation receivers at a receiving location and a processor coupled to the probe and to the receivers and operating under control of a stored program for determining angles between the source and each receiver which has the source in its field of view (page 1, section 0006), the improvement comprising: an indicator on the hand-held probe (page 1, section 0006), and the processor program including a routine for monitoring each receiver and causing the indicator to operate in a first mode if the source is in the field of view of all of the receivers and in a second mode if the source is in the field of view of all but one of the receivers (page 1, section 0006).

Regarding claim 16:

Rochelle discloses In a system for measuring the relative locations of points on a vehicle, which system includes plural first electromagnetic radiation sources adapted to be fixed relative to the vehicle and at least one second electromagnetic radiation source on a hand-held probe and plural electromagnetic radiation receivers at a receiving location and a processor coupled to the probe and to the sources and to the receivers and operating under

control of a stored program for determining angles between each receiver and each source which is in the field of view of the receiver, the improvement comprising: a display device coupled to the processor (page 1, section 0006), and an indicator on the hand-held probe, the processor program including a first routine for monitoring each receiver and generating on the display device a graphical display (page 1, section 0006) indicating for each first source and each receiver whether or not the first source is in the field of view of the receiver (abstract), the processor program including a second routine for monitoring each receiver and causing the indicator to operate in a first mode if the at least one second source is in the field of view of all of the receivers and in a second mode if the at least one second source is in the field of all but one of the receivers (page 1, section 0006, fig. 10).

Regarding claim 24:

Rochelle discloses in a method of measuring the relative locations of points on a vehicle by determining angles between each of plural electromagnetic radiation receivers and each of plural electromagnetic radiation sources which is in the field of view of the receiver, the improvement comprising: monitoring each receiver to determine which sources are in its field of view (fig. 5), and providing an indication as to whether or not any source is outside the field of view of any receiver and, if so, identifying which source or sources and which receiver or receivers (page 1, section 0006, fig. 10).

Regarding claim 2, Rochelle further disclose at least three source and receivers (abstract); Regarding claims 3, 18, 19, Rochelle further disclose source are fixed relative to each other (fig. 4, 5); Regarding claims 5, 20, Rochelle further disclose graphic representation of sources and receivers (page 1, section 0006, fig. 6, 7, 9); Regarding claim 5, Rochelle further disclose a line draw between receiver and source field outside of view (fig. 6, 7); Regarding claims 9, 22, Rochelle further disclose steady mode and intermediate mode (fig. 5, 6, 7, 8); Regarding claim 10, Rochelle further disclose indicator off if source is outside the filed of view of more than one receiver (abstract, fig. 5, 6, 7); Regarding claim 11, Rochelle further disclose plurality of sources (abstract); Regarding claim 12, Rochelle further disclose the indicator operates in the first mode if all sources are in the field of view of all receivers and in the second mode if no more than one source is outside the field of view of any receiver (fig. 6, 7, page 1, section 0006);); Regarding claim 15, Rochelle further disclose the hand-held probe has associated therewith a switch to activate a measurement of the position of the probe, the program routine being responsive to actuation of the switch to momentarily turn the indicator on if the probe location is successfully measured (page 1, section 0006); Regarding claims 21, 26, Rochelle further disclose the graphical display includes for each receiver a line drawn between that receiver and each first source which is outside its field of view (fig. 6, 7); Regarding claim 25, Rochelle further disclose providing a graphical display indicating for each source and each receiver whether or not the source is in the field of view of the

receiver (fig. 6, 7, page 1, section 0006); Regarding claim 27, Rochelle further disclose hand-held probe including at least one second electromagnetic radiation source, and providing in association with the probe an indication as to whether or not the at least one second source is in the field of view of all of the receivers (fig. 6, 7, page 1, section 0006); Regarding claim 28, Rochelle further disclose providing of an indication at the hand-held probe, includes operating an indicator in a first mode if the at least one second source is in the field of view of all of the receivers and in a second mode if the at least one second source is in the field of view of all but one of the receivers (fig. 6, 7, page 1, section 0006, fig. 10).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 4, 7, 13, 14, 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochelle (U.S. Patent Application Publication 2002/0093331) in view of Hendrix (U.S. Patent 6,115,927).

Rochelle discloses a system including the subject matter discussed above except source is LED and receiver are camera sensors, color coded indication, indicator is optical. Hendrix discloses a system included source is LED and receiver are camera sensors (fig. 15, abstract), color coded indication (Col. 11, Lines 52-67),

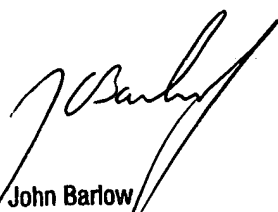
Art Unit: 2863

indicator is optical (abstract), in order to have a quick, easy to learn and accurate system (Col. 1, Lines 40-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rochelle to have the source is LED and receiver are camera sensors, color coded indication, indicator is optical taught by Hendrix in order to have a quick, easy to learn and accurate system (Col. 1, Lines 40-48).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL


John Barlow
Supervisory Patent Examiner
Technology Center 2800